

Health-Related Physical Fitness and the Relationship to Academic Achievement

Request for Applications

Application Deadline: January 5, 2004



California Department of Education

I. INTRODUCTION

The California Department of Education is soliciting proposals for unfunded research to explore the relationship between academic achievement and physical fitness.

A recent analysis by the California Department of Education Standards and Assessment Division found a significant correlation between academic achievement and the physical fitness of California public school students. The analysis used matched individual scores from the Spring 2001 administration of Stanford 9 Achievement Test and the state-mandated physical fitness test, *Fitnessgram*. A significant correlation between achievement and fitness was found after controlling for parent education and socio-economic status (as measured by free/reduced price lunch status).

The analysis included students in grades 5, 7, and 9 statewide. It did not include:

- A review of related literature;
- Additional detailed analysis of data, addressing several research questions, including the generalizability of the relationship, interactions with demographic variables, or examination of alternative explanations of the effects; or
- Analyses of county, district or school results, including identification of exceptional programs.

Further analysis of the data is necessary to examine the relationships and study additional variables not included in the initial analysis.

II. PROGRAM OBJECTIVES

The principal objectives of this program include:

- A. Analysis of data from the
 1. 2001 *Fitnessgram* and SAT-9 Achievement Tests
 2. 2002 *Fitnessgram* and SAT-9 Achievement Tests
 3. 2003 *Fitnessgram* and California Standards Test
 4. Relationship between findings from 2001, 2002, and 2003.
- B. Further examine the relationship between physical fitness and achievement in reading and mathematics.
- C. Preparation of a report, and potential publication of the results in a refereed professional journal.
- D. Analyze results from above data at the county, district, and school levels.

III. ELIGIBLE APPLICANTS

Applications may be submitted by any United States public or private organization including universities, colleges, research institutions, organizations, or agencies. The California Department of Education expects to recruit and select researchers who can work as a multidisciplinary team that includes qualified expertise in each of the following areas: educational research, physical fitness and/or physical education, mathematics, and

reading. Selected researchers will be those who have demonstrated research capabilities/expertise through completion of research studies that have been disseminated through publication in peer-reviewed journals.

IV. TIMELINE

November 19, 2003	Call for Applicants released
January 5, 2004	Applications Due (Applications received after January 5, 5:00 pm will not be considered)
February 6, 2004	Selection of Research Team
June 15, 2004	Report of progress #1

A schedule for progress reports will be determined after February 6, 2004.

V. FUNDING

Applicants will provide all staffing, supplies, and other materials necessary to support this research. No funding for this project is available from the California Department of Education.

VI. RESOURCES AVAILABLE BY THE CALIFORNIA DEPARTMENT OF EDUCATION

The California Department of Education will provide the selected researchers with the data files needed for analysis after receiving the following:

1. A proposal that addresses all the criteria listed below.
2. An assurance that access to data for individual students will be limited to authorized researchers and will not be disclosed to any third party under any circumstances.
3. An assurance that the selected researchers will provide the California Department of Education with agreed upon progress reports.
4. An assurance that the selected researchers will provide the California Department of Education with advance copies of all research papers developed or submitted for publication.

The California Department of Education will provide data file documentation and telephone consultation on technical issues related to the data and analyses.

VII. PROPOSAL REVIEW AND SELECTION PROCESS

The California Department of Education will use the following criteria to evaluate applications. Weights have been assigned to each criterion indicating its relative importance in the evaluation process.

The criteria are:

- (1) Quality of the project design (60)
 - (a) Whether there is a conceptual framework underlying the proposed activities and the quality of that framework.
 - (b) Whether a specific research design has been proposed, and the quality and appropriateness of that design, including the scientific rigor of the studies involved.
 - (c) The extent to which the research design includes a thorough, high-quality review of the relevant literature, a high-quality plan for research activities, and the use of appropriate theoretical and methodological tools.
- (2) Quality and potential contributions of personnel (15)
 - (a) The qualifications, including training and experience, of the project director or principal investigator.
 - (b) The qualifications, including training and experience, of collaborators or consultants.
- (3) Significance (10)
 - (a) The nature of the products (such as scholarly papers, information, materials, processes, or techniques) likely to result from the project and the potential for their effective use in a variety of other settings.
 - (b) The extent and quality of plans for disseminating results in ways that will allow others to use the information.
- (4) Adequacy of resources (10)
 - (a) Whether the resources are adequate to support the project.
 - (b) The relevance and commitment of each partner in the project to the implementation and success of the project.
- (5) Quality of the management plan (5)
 - (a) The adequacy of the management plan to achieve the objectives of the project, including the specification of staff responsibility, timeliness, and benchmarks for accomplishing project tasks.
 - (b) Whether time commitments of the project director or principal investigator and other key personnel are appropriate and adequate to meet project objectives.
 - (c) The adequacy of plans for widespread dissemination of project results and products in ways that will assist others to use the information.

VIII. RESEARCH PROPOSAL CONTENT

Applications should be prepared following the guidelines and the instructions below.

1. General
 - (a) Prepare the application on only one side of the page using standard size (8 ½ x 11”) white paper, one-inch margins, using no smaller than 12-point font.
 - (b) Number each page of the application sequentially, starting with the Project Description, including all pages, and any appendices.
 - (c) Three (3) copies must be submitted in one package.
2. Research Proposals. Proposals shall consist of the following elements.
 1. **Title**
 2. **Investigator(s) qualifications** – Include a resume(s) of the principal investigators.
 3. **Abstract** (3 paragraphs maximum) – Provide a brief description of the problem, methods, and objectives.
 4. **Project Description** – The Project Description shall not exceed twenty (20) pages of written text including figures and tables. The project description must include all of the following:
 - a. Description of the investigations and/or analyses proposed and the sequence in which the investigations are to be performed;
 - b. Techniques to be used in carrying out the proposed project; including the feasibility of the techniques;
 - c. Results expected;
 - d. Means by which data will be analyzed or interpreted;
 - e. Pitfalls that may be encountered;
 - f. Limitations to proposed procedures; and
 - g. A tentative schedule for conducting major steps involved in this project.
 - h. Facilities and equipment - facilities and equipment that are available for use or assignment to the proposed research project should be described.
 5. **References**
 6. **Appendices to Project Description** – Appendices to the Project Description are allowed if they are directly related to the proposed project. The addition of appendices should not be used to circumvent the page limitation.
 7. **Key Personnel** – This section should include the vitae of all key persons who are expected to work on the project.
 8. **Collaborative Arrangements** (including letters of support)

IX. APPLICATION REQUIREMENTS

- A. Applications may be hand-delivered, submitted via express mail, overnight courier service, or U.S. Postal Service and should be delivered to:

California Department of Education
Standards and Assessment Division
1430 N Street, Suite 5408
Sacramento, CA 95814
Attention: Debbie Vigil

X. ADDITIONAL INFORMATION

If you have further questions regarding this research, please contact:

Debbie Vigil, Consultant, Standards and Assessment Division, at (916) 319-0341, or via email <dvigil@cde.ca.gov>, or Dianne Wilson-Graham, Consultant, Curriculum Leadership Division, at (916) 319-0280, or via email <dwilsong@cde.ca.gov>.